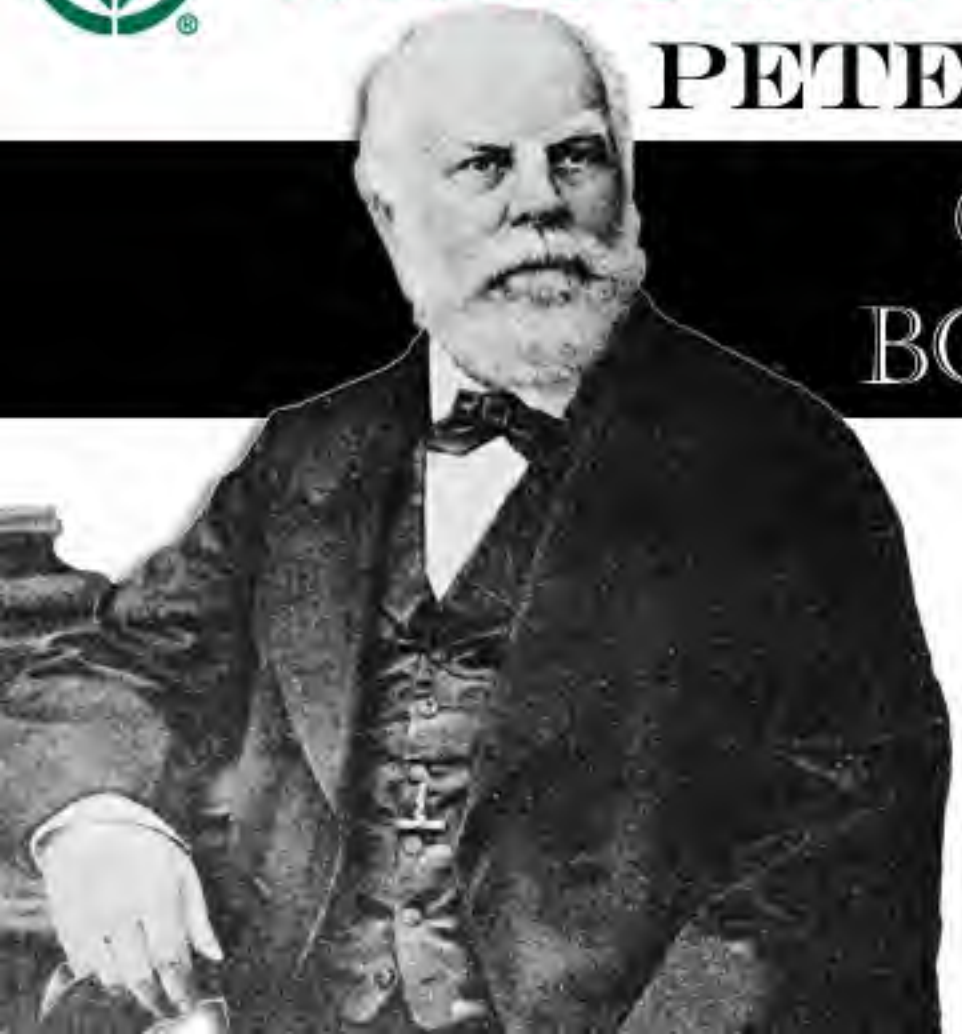
Missouri Botanical Garden
Peter H. Raven Library

George Engelmann Botanical Notebooks



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Rec'd Sept 23d
Ans Oct 5th

Dec 20th Sept. 1872

My Dear Engelmann

Not one hands me
your letter of the 15th —
I wish I had time to
(what is most wanting —
strength of arm, to write you
a long letter about our journey
to & fro — As to St. Louis.
1st we had free tickets to
return by to Omaha —
So that we had to go back
from Denver to Cheyenne
Then, as I was due at
Dubuque on the 21st
Aug, sharp! there was no
time to visit you — So
now we are going through St.
Louis in a tantalizing way,
thirsty St. Louis is too hot
in summer — dare not risk my
wife. Wait till I can get
so free that I can leave
Cambridge in Spring!!

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12920

A to the two species of Balsam Apios of Cali-
fornia.

The one with flatter
appressed, less white glan-
ces & smaller ones —
ther. I saw never a one
this year) I first saw
between Manipsn &
Blanks, and it is the
common & only one up to
about 6 or 7 or first
This I take to be A.
grandis. No, corrolor

Higher up comes the
one with more glaucous
& denser leaves, crowded &
not appressed dissections,
& large corolla: this I
call A. amabilis, magnifica
is Parkatypes under that
name evidently

I cried last year, but not this. I saw cows in one place only, when passing in coach & could not get at them.

A. nubilis. I suppose, is all farther north. I saw nothing of it.

The tree in Colorado, which I saw with Parry, and he calls A. grandis, is different. It seemed to me A. balsamea. About such cones, not large. It is likely to be ~~A. concolor~~ A. concolor. I suppose? no. Parry must have cones from Parry.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

This Engelmannii is not at all A. nigra, nor at all A. Menziesii. But I am ready to swear it to be A. alba. It has just the look & the cones of the N. E. tree. I took a cone or two, last year — Darby can get plenty of this year. Cone is cylindrical; scales firm, with a clean even edge; just as A. alba — not like A. Menziesii at all, and the tree is diff. quite; the foliage not prickly. All the young trees I have growing near seem to be of A. Menziesii

Pinus flexilis, I saw one stunted tree in Clear's rest, back of Fremonts, 10,000 ft. no cones.

Enclosing cordially
I saw your
letter, a few
minutes, at Salt Lake,
A Gray

12921

Abies

Synonymy

793-80-2

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

MISSOURI BOTANICAL GARDEN
copyright reserved
0 1 2 3 4 5 6 7 8 9 10 cm

Fedia Mönch

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Abies (C. E Bertrand, 1874) Ann. sc. nat 20 p. 93

I Resin ducts close to the epidermis of the lower surface [peripheral]

A. grandis Stom. above over the whole upper surface — 14 series in each band below [concolor!]

A. Reginae Amaliae " " in a few long lines 10 " " " "

A. Numidica " " a few only towards tip 7 " " " "

A Cephalonica no stomata above 7 series in each band below, hypoderm above, continuous

A. peotinata " " " 7 " " " " interrupted

A Nordmanniana " " 7 " " " " quite scarce

A Cilicica " " 7 " " " No hypoderm above

A bifida " " 10 or more series in each band below, single false bast cells

A. bracteata " " 10 " " " no false bast cells, hypoderm above continuous leaf acute

A. spectabilis " " 10 " " " " " " " " bilobed

A. Gordoniana 10 " " " " hypoderm above interrupted

II Resin ducts Distant from the epidermis [interior parenchymatous]

A Pinsapo Stom above hypoderm above ~~6 series of stom~~ in 6 series — hypoderm above

A. Fraseri " " 2 " " "

A. balsamea " " no hypoderm above. ~~10 series of sto in each band below~~

A Veitchii No stomata above " " 10 series of stomata in each band below

A. Sibirica " " " " 5 " " " "

A. homolepis " " hypoderm. 7 " " " "

A firma " " " 10 " " " "

I Resin ducts peripherical

hypodermis Stratum on upper side A. Ceph. pect. Nord. bract. spectab gordon.

No hypoderm A. Cilicica

II Resin ducts interior

hypoderm. Strata A. Pinsapo A Fraseri homolepis firma

No hypoder A. Balsamea Veitchii Sibirica

not Stated whether hypoderm: grandis (concolor) Regin. Amal. Numidica bifida

12922

hooked or flexuous spiny teeth, ~~this~~ the largest, near the middle, ~~of the rear~~ 6 lines long, and half as broad; the margin ~~occasionally~~ in old leaves is often partially detached with a few of the spines adhering, but not as regularly as e.g. in A. heteracantha. The stalk, 2-2½ inches thick, 8-12 feet high is always entirely covered with large (4-5 by 2 inches) triangular bracts, foliaceous, with brown scarious margins and tipped with a spine. The branches of the broad oval panicle are very stout (4-8 or 9 inches long, 1-1¼ wide), flattened above and bear at the end a most compact cluster of 30-50 flowers surrounded by large foliaceous fleshy bracts, 1-2 inches wide, 2-3 long, ~~and~~ which form a sort of an involucrum; the whole, after the flowers have fallen and only the short truncate closely packed pedicels are seen, 3 lines wide, ~~and~~ interspersed with subulate bracts, 1-2 inches in length, simulating the receptacle of some large Compositæ, 2-3 inches in diameter.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Flowers 3-3½ inches long, greenish yellow; prismatic ovary 1¼-1½, ~~in~~ perigon 1¾-2 inches long, tube outside 8-9, inside 6-7 lines long, lobes 12-14 lines long, outer a little longer and ¾, inner shorter, 4 lines wide. Stamens inserted in the middle of the tube, only about ½ inch longer than perigon; anthers 14 lines long; pollen grains oval, 0.09-0.12 mm in longest diameter, beautifully marked. Style* in the numerous specimens before me curved and ½-¾ inch longer than the filaments, apparently already considerably lengthened ~~already~~, when the stamens begin to unfold. Capsule cuspidate but not stipitate, 2½-2¾ inches long, not quite 1 inch in diameter, forming a densely packed radiating cluster, 6 inches in diameter; seeds 4 lines wide.

* footnote. A triangular channel penetrates the style

1872 "and about which Mr McNab could say something if it pleased him, "to unmuzzle his Wisdom on the subject". Gard Chronicle July 13 1872 p. 941

Coniferous plants from British Columbia
by James McNab of the Royal Bot Gard, Edinburgh
Gardeners Chronicle Apl 6 1872 No 14 p. 464

"John Jeffrey" left Scotland in March 1850. is said to have been killed, trading with Indians before 1854 (Douglas Collector 1825–1833)

"Picea grandis" Jeffrey, sent home in 1851 has been more lately sent as Picea Lowii and by another as P. Parsonii; is under the name of Lowii extensively cultivated; a long leaved species; one of Jeffrey's is now in Ed. Bot. G. 15 feet high; 280 feet for Jeffrey 15' circumf.

"Picea amabilis" Jeffrey I named P. magnifica, the handsomest of all the Genus. One of the original plants from Jeffrey's seed in H.B. Ed. is now 11' h. delicate blue in summer, perfectly green in winter — Cones large with a peculiar curve. Messrs Low & Co lately sent them out as P. amabilis, &

"Picea lasiocarpa" Oregon Association now 20' in H.B.Ed; Many seedlings from seed sent home lately as "grandis" are this plant.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12923

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS.

March 1872

Abies grandis

a. **concolor** is the form of the Rocky and higher Oregon Mountains

b. **Douglasii** seems to grow in the Lower Valleys of Oregon to British Columbia and Vancouver and into California.

c. **Lowiana** (macrocarpa, longifolia) belongs to the California Mountains

d. **amabilis** California Coast to Cascade Mountains.

Abies concolor (magnifica)

a. **minor** Rocky Mountains of New Mexico Colorado & Utah.

b. **macrocarpa** California Sierras

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

St Louis am 25ten April 1847

Lieber Freund,

Ueberbringer dieses Briefes, Herr Fittmann, der jüngere, ist dir schon als tüchtiger botanischer bekannt, als treuer eifriger Schüler seines Vaters Fittmann in Belleville, und als Freund folgende Empfehlung überflüssig.

Auf dem Rückweg nach seiner Heimath will er sich frankfurt a/M besuchen, und hat mich ersucht mir Dir mich zu empfehlen, und Dir von mir Dich einzuführen. Da er ein frankfurt ganz fremd ist, wirst Du gewiss die Gefälligkeit ergreifen ihm auf seinen botanischen Excursionen Dich selbst mit Rath und That behülflich zu sein.

12924

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

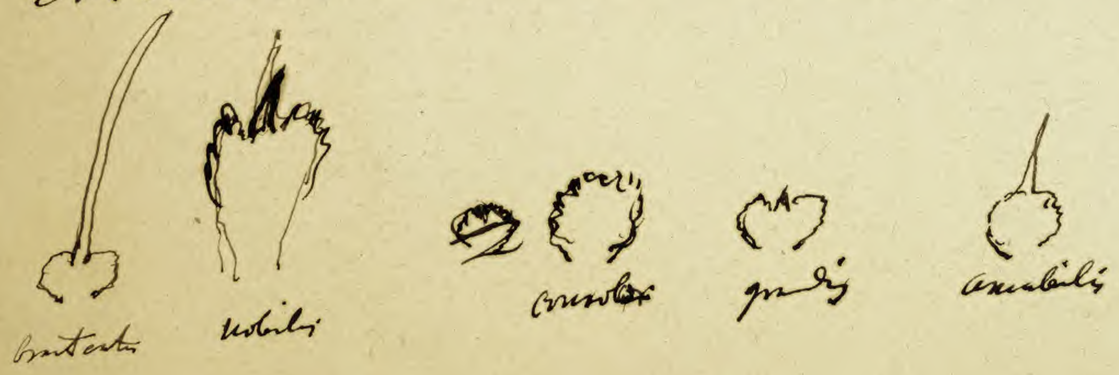
Herb Kew Sept 8 1869

Abies nobilis Sabine, Douglas non spec. „ on the high Mountains at the Great Rapids of the Columbia and near Base of Mt Hood 1825
looks very much like the pale amabilis from same region, and
by the same and by Lyall

Amabilis Jeffrey, Shasta Mts, Oct 17, 1852 6000' high. leaves curved up,
paler beneath - very obtuse, oblique truncate from below -
same = Lobbs specimen from Sierra Nevada

A. lasiocarpa Hook f., Columbia River, Douglas; scales small wedge,
bract short abruptly cuspidate - leaves obtuse, slightly white
below - cone small - Hookers type!

A. concolor Lindl Forbes N. 828



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12925

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Abies curley or incurved H.G. Kew Sept 1869

Is there a difference between curly-leaved and flat-leaved specimens? In other words, is the character constant?

Douglas' 2 original specimens are here; nobilis is curley-leaved, amabilis flat-leaved. — Correct? see note below F

But as there is a fragment specimen in H.G. Kew with curled leaves, without the core of nobilis there must necessarily be at least 2 curley leaved species (provided this character holds good.

Lobb. 441. Town woods — 150–200' high — leaves mostly short & angular — curved up. leaves at the base of shoots flat below — whole branch very robust. always keeled above

F Jeffrey. nobilis is mostly keeled below and above

F Douglas' specimens may be misplaced or misnamed.

There are 5 in Herb Kew.

1. labelled nobilis with curled leaves grooved above, and dark green — [can not be nobilis and may be amabilis] Sob. Hort. Lond.
2. printed label: Douglas N West America, but no name, may be the same as Cast.
3. labelled amabilis, short & flat-ish leaves, may be correctly labelled
4. labelled G Hooker lasiocarpa and is no doubt correct for that species, but with a small cone.
5. labelled Gustavi — no mistake about that

0 1 2 3 4 5 6 7 8 9 10 cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12926

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

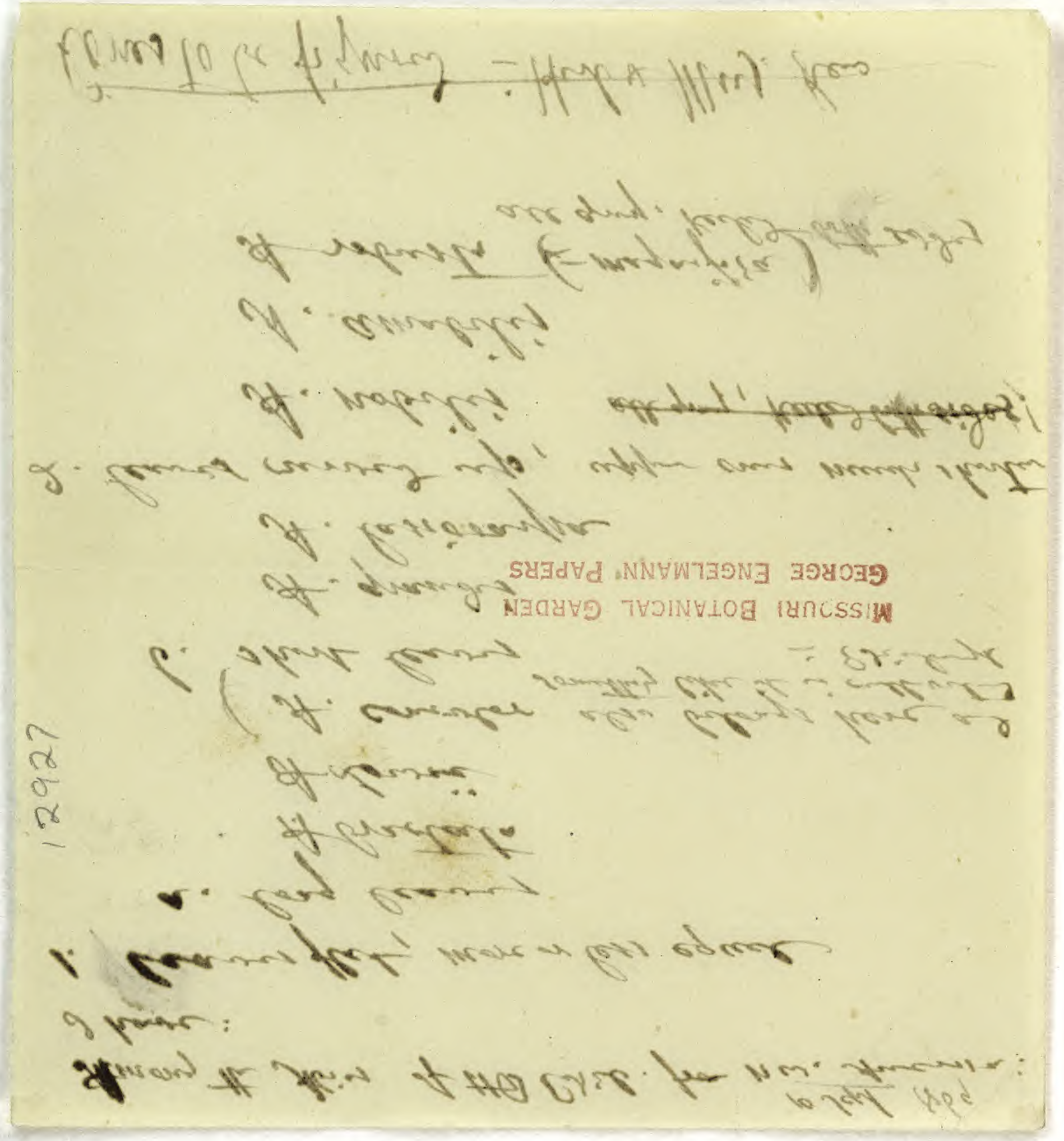
Among the Abies of the Ctrl. for n.w. America: 10 Sept 869

I have:

1. Leaves flat, more or less equal
   a. long leaves
      A. bracteata
      A. Lowii
   b. short leaves (A. concolor also belongs here and something like it is cultivated = Edinburgh
      A. grandis
      A. lasiocarpa
2. Leaves curved up, upper ones much shorter
   A. nobilis ~~all grey, keeled both sides~~!
   A. amabilis
   A. robusta (& magnifica) all grey. keeled both sides

~~Cones to be figured~~ = Hook. Illus. Kew

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



12927

0 1 2 3 4 5 6 7 8 9 10 cm
copyright reserved
MISSOURI BOTANICAL GARDEN

have

Abietes occidentales in Herb Kew
Sept 10 1869
foliis planis

A. bracteata Douglas, Bridges Lobb

A. grandis Lyall Lake Chilukaweyak (?) Brit. Colmb. Sept 1859
♂ & ♀ Cascade Mountains

Lyall St Juan Island. 1858 ♂
Lyall № 2 with wood Columbia River
Lyall "cones 3 inches" Cascade Mts eastside
July 1860
Jeffrey 393 1853., marked Cascades cones slender, 6? cm.

Cascades Hooker & Douglas Columbia River

A. concolor Fraser 828

A. amabilis A. Lowiana Gordon Clapton
from Lowe (Clapton
Douglas 1825 labelled: (nobilis subsin)
Grand Rapids of the Columbia, but no doubt
not the nobilis so easily recognized by its cones
as well as leaves
Douglas, Grand Rapids, 1825, labelled amabilis
with straighter leaves — doubtful — perhaps a
Russell: Independence Rock, variegata grandis
Lyall Gallatin Range Aug Mts Aug 1860 ♂.
D. Douglas Am bar cones — printed label — no name
Lyall Cascade Mts Aug 1860 ♂ & ♀ leaves
— ♀ ½. very acute; cone 7 cent
Lyall Rocky Mts. 1861 ♀
Lyall Columbia Valley (wood 12) leaves
shortly acute — cones about 7 cent long

over.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

12928

Abies nobilis Jeffreys – F. Shasta Mts. Oct 17 1852

Lobb 441 Sierra Nevada

Lowe (Clapton)

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus bracteata Don — Lin Trans 17. p. 443.

Lamb. Pin. III. t. 91. | p. 169 t. 175 fd Camb

Picea — Loud. Arb. IV. p. 2348 fig. 2256

Abies — Nutt Sylv III. p. 137. t. 118.

— — Carrière Conif. p. 196.

Pinus — Endl Conif 89

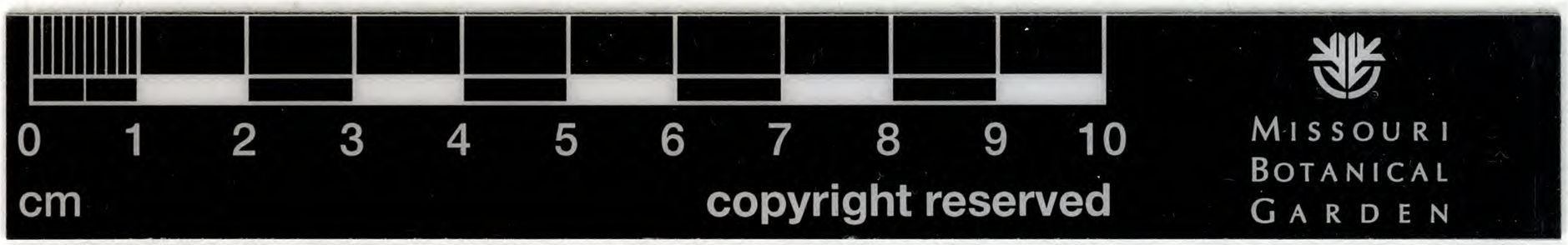
Pinus — Hook icon. t. 379.

Hook & Arn. Bot Beechy. 394

12929

Syn Pinus ponderosa Dougl.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS



over

Sept 9 1870

A. grandis

α. cyclolepis (bifolii Hook. Lasiocarpa Hook) leaves obtuse or acute, short, on fructiferous branches mostly very acute, green or slightly whitish below.
Rocky Mountains, Colorado — Montana
Valley of Columbia River Northward, Cascade Range to 49°

β. genuina Douglasii leaves obtuse or acutish, sometimes emarginate, mostly whitish below, more rarely green
California Mountains to Cascade Mountains & British Columbia and Queen Charlotte Island.

γ. macrocarpa no leaves seen — Californici
(= Hookeriana Gord ?)

δ. amabilis leaves deeply crowded, dark above, very white below
~~very white below~~. obtuse or emarginate, rarely acute.
Californici (Mendocino)

(? ~~E. concolor~~ leaves crowded, keeled both sides, obtuse or acutish
pale green both sides.
Santa Fe.

Watch the character of young and old trees — sterile lateral shoots or fertile branches — difference of erect and horizontal branches, and their leaves!

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Sept 7 1870 over 12930

Abies grandis

Bracteis cuneato-obovatis subulato-mucronatis ~~plerumque~~ strobilis minoribus, squamis transverse oblongis (bracteis obovatis) 15-21 mm latis, 9-14 mm altis (lat: alt = 3:2 6:4

Colorado, Parry
Laramie, Hayden
Wind R. Mts Hall & Hayden
Montana, Swallow

leaves obtuse or acute, or very acute, short, green, or slightly white below — " " "